

Amendments to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1.(original): An ancient defense polymer having antimicrobial activity, said polymer comprising one or more discrete hydrophobic segments and one or more hydrophilic segments containing cationic functionality.

Claim 2.(original): An ancient defense polymer according to claim 1, in which said hydrophobic segment comprises:

- 1) polymerized hydrophobic chain growth monomers;
- 2) polymerized step-growth monomers; or
- 3) hydrophobic (di)functional oligomers or polymers.

Claim 3.(currently amended): An ancient defense polymer according to claim 1-~~or~~2, in which said hydrophilic segment comprises:

- 1) polymerized cationic chain growth monomers;
- 2) a polymer made from a mixture of cationic chain growth monomers and (i) uncharged monomers that are hydrophilic or (ii) hydrophobic monomers; or
- 3) cationic (di)functional oligomers or polymers .

Claim 4.(currently amended): The ancient defense polymer of claim 1,~~2, or 3~~, wherein said hydrophobic segment comprises polymerized hydrophobic alkyl methacrylates, aryl methacrylates, alkyl methacrylamides, or aryl methacrylamides.

Claim 5.(currently amended): The ancient defense polymer of claim 1 ~~any one of claims 1 to 4~~, wherein said hydrophilic segment comprises polymerized methacrylates and/or methacrylamides.

Claim 6.(original): The ancient defense polymer according to claim 1 comprising a copolymer of 3-aminopropyl methacrylamide (AMA,) and poly(propylene oxide)monomethacrylate (PPO-ME).

Claim 7.(original): The ancient defense polymer according to claim 6 wherein AMA is present in an amount of from 5 to 50 mol%.

Claim 8.(original): The ancient defense polymer according to claim 6, wherein AMA is present in an amount of about 10 mol%.

Claim 9.(original): The ancient defense polymer according to claim 1, comprising a terpolymer of 3-aminopropyl methacrylamide (AMA,). poly(propylene oxide)monomethacrylate (PPO-ME), and methyl methacrylate.

Claim 10.(original): The ancient defense polymer according to claim 1, comprising a terpolymer of 3-aminopropyl methacrylamide (AMA), poly(propylene oxide)monomethacrylate (PPO-ME), and n-butyl methacrylate.

Claim 11.(currently amended): The ancient defense polymer according to claim 1 ~~any one of claims 1 to 10~~, that has a grafted chain architecture, comprising a main chain and chains grafted onto the main chain.

Claim 12.(original): The ancient defense polymer of claim 11, wherein the main chain contains hydrophilic segments and the grafts contain the hydrophobic segments.

Claim 13.(currently amended): The ancient defense polymer of claim 1 ~~any one of claims 1 to 10~~, wherein the hydrophilic and/or the hydrophobic segments are attached either directly or indirectly to a derivatizable polymer.

Claim 14.(original): The ancient defense polymer according to claim 13, wherein at least one of said hydrophobic segments or said hydrophilic segments is attached to the derivatizable polymer by a spacer group.

Claim 15.(original): The ancient defense polymer according to claim 13, wherein said hydrophobic segment and said hydrophilic segment are attached to the derivatizable polymer by a spacer group.

Claim 16.(original): The ancient defense polymer according to claim 13, wherein at least one of said hydrophobic segments and said hydrophilic segments is grafted onto said derivatizable polymer.

Claim 17.(original): The ancient defense polymer according to claim 13, wherein said hydrophobic segment is grafted onto said hydrophilic segment.

Claim 18.(currently amended): The ancient defense polymer of claim 13 ~~any one of claims 13 to 16~~, wherein the derivatizable polymer comprises polymerized chain growth monomers containing reactive functional groups.

Claim 19.(original): The ancient defense polymer of claim 18, wherein said functional groups are one or more of the groups selected hydroxyl, carboxylic acid, amine, vinyl, acid chloride, and isocyanate.

Claim 20.(currently amended): An apparatus comprising the ancient defense polymer of claim 1 ~~any one of claims 1 to 19~~ bound in or attached to a surface of said apparatus to impart antimicrobial activity to said apparatus.

Claim 21.(original): The apparatus of claim 20, wherein said apparatus is selected from the group consisting of an implant, a catheter, a replacement valve, a wound dressing, a medical device, and a stent.

Claim 22.(original): The ancient defense polymer of claim 10, made from 1-15 mol% BMA, 5-49 mol% AMA, and 50-90 mol% PPO-Me.